

What is claimed is:

1 1. A system which uses at least one portable device for storing and communicating
2 information corresponding to a plurality of individuals who form a group, the system
3 comprising:

4 a portable device including a memory, the memory including:

5 a plurality of data sets, said plurality of data sets including:

6 i) a plurality of individual member information data sets, each
7 individual member data set corresponding to a different individual
8 member in said group and including at least one of medical information,
9 nutritional information, insurance information, financial information and
10 appointment information specific to the individual group member;

11 ii) a group data set, the group data set including information
12 corresponding to a plurality of members of said group, at least some
13 information in said group data set being aggregated from multiple group
14 member information data sets, said group data set including aggregated
15 information corresponding to at least one of medical information,
16 nutritional information, insurance information, financial information and
17 appointment information; and

18 iii) access control information, said access control information including
19 information being used to limit the amount of access different entities are
20 provided to the content of said plurality of data sets, the amount of access
21 provided by said access control information depending on at least one of
22 the identity of an entity and a type of service to be provided by an entity.

1 2. The system of claim 1, wherein at least two different individual member
2 information data sets both include insurance information and medical information, said
3 group data set including at least some insurance information from each of said at least
4 two different individual member information data sets.

1 3. The system of claim 1, wherein at least two different individual member
2 information data sets both include nutritional information and financial information, said
3 group data set including at least some nutritional information from each of said at least
4 two different individual member information data sets.

1 4. The system of claim 1, wherein said access control information includes
2 identification information, said identification information including information
3 distinguishing different entities who may attempt to access the memory, said entities
4 including at least one of a member of said group and a service provider.

1 5. The system of claim 4, wherein said access control information includes
2 information used to identify different individual members of said group.

1 6. The system of claim 4, wherein said access control information includes
2 information used to identify different service providers, said different service providers
3 including at least two of a medical service provider, insurance service provider, credit
4 service provider.

1 7. The system of claim 1,
2 wherein said individual group member data sets are stored in an encrypted format;
3 different group member data sets being encrypted using different encryption information;
4 and
5 wherein said access control information includes information used to decrypt
6 encrypted individual group member data sets, different encryption information being
7 included for at least some different individual group member data sets.

1 8. The system of claim 7, wherein said access control information includes
2 information sufficient to determine a decryption key that should be used to decrypt an
3 individual group member data set, different decryption keys being used for different
4 individual group member data sets.

1 9. The system of claim 8, wherein different encryption keys are used for information
2 stored in an individual group member data set corresponding to different services.

1 10. The system of claim 1, further comprising:
2 an access control means for limiting access to different sets of data stored on said
3 portable device to different entities, said different entities being providers of different
4 types of services.

1 11. The system of claim 10, wherein said access control means limits the ability of
2 different entities to read different portions of said stored data sets.

1 12. The system of claim 10, wherein said access control means limits the ability of
2 different entities to update different portions of said stored data sets.

1 13. The system of claim 10, wherein said access control means limits a medical entity
2 providing a medical service to reading and updating medical information stored in an
3 individual group member data set corresponding to an individual group member to whom
4 a medical service is being provided.

1 14. The system of claim 13, wherein said access control means limits the individual
2 group member from obtaining access to the medical information stored in said individual
3 group member data set.

1 15. The system of claim 10, wherein said access control means is included on said
2 portable device, said access control means including:
3 a processor; and
4 at least one access control routine used to control the amount of access entities
5 have to data sets stored in the memory of the portable device.

1 16. The system of claim 15, wherein said portable device is a smart card.

1 17. A method of communicating information corresponding to members of a group
2 through the use of a portable device, the method comprising:
3 storing on the portable device including a memory a plurality of data sets, said
4 plurality of data sets including:
5 i) a plurality of group member information data sets, each group
6 member information data set corresponding to a different individual
7 member of said group and including at least one of medical information,
8 nutritional information, insurance information, financial information and
9 appointment information specific to the individual group member; and
10 ii) a group data set, the group data set including information
11 corresponding to a plurality of members of said group, at least some
12 information in said group data set being aggregated from multiple group
13 member information data sets;
14 providing different entities different levels of access to said plurality of data sets.

1 18. The method of claim 17, wherein said different entities include different service
2 providers, and wherein said step of providing different entities different levels of access
3 includes providing an entity a level of access to said plurality of data sets as a function of
4 the type of service to be provided by the entity.

1 19. The method of claim 17, wherein the different service providers provide services
2 to different members of said group, and wherein said step of providing different entities
3 different levels of access further includes providing an entity a level of access to said
4 plurality of data sets as a function of the identity of the group member to which said
5 service is provided

1 20. The method of claim 19, wherein providing different entities different levels of
2 access includes:
3 allowing an entity providing a first service to a first group member to access
4 information stored in a first group member information data set corresponding to the first

5 user, but preventing access by said entity to group member information data sets, stored
6 on said portable data storage device, corresponding to other group members.

1 21. The method of claim 19, wherein providing different entities different levels of
2 access includes:

3 restricting said entity providing the first service to the first group member to
4 accessing information stored in the first group member information data set that
5 corresponds to another service which is different said first service.

1 22. The method of claim 21, wherein said first service is a medical service and the
2 information stored in the first group member information data set that corresponds to
3 another service is financial information which corresponds to a financial service.

1 23. The method of claim 22, further comprising:
2 providing the entity providing the first service to at least a portion of said group
3 data set which is relevant to the first service.

1 24. The method of claim 21, further comprising:
2 updating information corresponding to the first group member stored in a network
3 database from information read from said portable storage device.

1 25. The method of claim 24, further comprising:
2 updating information corresponding to the first group member stored on said
3 portable data storage device using information read from said network database.

1 26. The method of claim 25,
2 wherein said network database is a database of medical insurance information;
3 and
4 wherein the information used to update said medical insurance information
5 database is patient treatment information read from said portable memory device.

- 1 27. The method of claim 21, further comprising:
2 updating information corresponding to a plurality of group members stored in a
3 network database from information read from said portable storage device.

- 1 28. The method of claim 21, further comprising:
2 updating information corresponding to a plurality of group members stored in on
3 said portable data storage device using information read from a network database.

- 1 29. The method of claim 28, wherein said portable data storage device includes in
2 each group member data set, health care information corresponding to the group member
3 to which the individual group member data set corresponds.

- 1 30. The method of claim 29, wherein said group is a household, each group member
2 data set corresponding to a different member of said household.

- 1 31. The method of claim 17, wherein said entities are group members; and
2 wherein providing different entities different levels of access to said plurality of
3 data sets includes providing a head of said group access to at least a portion of said group
4 data set and access to at least a portion of the group member information data set which
5 corresponds to said head of said group.

- 1 32. The method of claim 31, wherein said entities are group members; and
2 wherein providing different entities different levels of access to said plurality of
3 data sets includes providing at least some members of said group access to their
4 corresponding group member information data sets, but not to said group data set.

- 1 33. A portable data storage device for communicating information corresponding to a
2 plurality of members of a group, comprising:
3 a memory, the memory including a plurality of data sets, said plurality of data
4 sets including:

- 5 i) a plurality of individual member information data sets, each
6 individual member data set corresponding to a different individual
7 member in said group and including at least one of medical information,
8 nutritional information, insurance information, financial information and
9 appointment information specific to the individual group member;
10 ii) a group data set, the group data set including information
11 corresponding to a plurality of members of said group, at least some
12 information in said group data set being aggregated from multiple group
13 member information data sets, said group data set including aggregated
14 information corresponding to at least one of medical information,
15 nutritional information, insurance information, financial information and
16 appointment information; and
17 iii) access control information, said access control information including
18 information used to limit the amount of access different entities are
19 provided to the content of said plurality of data sets, the amount of access
20 provided by said access control information depending on at least one of
21 the identity of an entity and a type of service to be provided by an entity.

1 34. The portable data storage device of claim 33, further comprising:

- 2 a processor;
3 a security routine, in said memory, said security routine performing a user
4 authentication operation using information provided by a group member,
5 said information being used to authenticate said group member and to
6 indicate user authorization to provide at least some stored information.

1 35. The portable data storage device of claim 1, wherein said data storage device serves
2 as a secure method of communicating medical information without the
3 need to transfer said information over a communications network to a
4 service provider, said portable data storage device including in said
5 memory in one of said individual member information data sets:

6 medical insurance information for a group member;
7 medical history information for said group member;
8 and
9 an X-Ray in digital form, said X-Ray corresponding to said group
10 member.